

REMARKS

Although the basis of the rejection of claim 15 was not set forth in a "Claim Rejections" summary in the outstanding Final Official Action, Applicant assumes that claim 15 was again rejected over SATO (U.S. Patent No. 5,956,328) in view of the Admitted Prior Art and OMORI (U.S. Patent No. 6,239,666), as in the previous Official Action dated July 21, 2006. The combination recited in claim 15 is not disclosed, suggested or rendered obvious by any proper combination of SATO, the Admitted Prior Art and/or OMORI. Accordingly, the rejection of claim 15 on this basis is improper and should be withdrawn.

The rejection is based on the Examiner's proposal to initially take element 202 of SATO as the claimed "phase offset circuit", and then to rebuild the combination of pending claim 15 around element 202. In this regard, according to the rejection in the Final Official Action, element 201 of SATO is mischaracterized as the claimed "sign inversion circuit", amplitude multiplier 406 of Figure 4B of the Admitted Prior Art is added before element 202 of SATO in view of the teachings related to Figure 4B of the Admitted Prior Art, and amplitude multiplier 406 is placed after (mischaracterized) element 201 of SATO in view of the teachings related to element 38 in OMORI. As explained herein, the proposed modification would not result in the combination recited in claim 15 and, in any case, there is no proper motivation to modify SATO in the wholesale manner asserted in the Final Official Action.

The rejection in the Final Official Action is based on mischaracterizations of the teachings of both the Admitted Prior Art and the documents applied in the Final Official Action. In this regard, the Final Official Action mischaracterizes element 201 in SATO as a "sign inversion circuit (201)", though SATO consistently designates element 201 as a "first phase

shifter 201" in both the Figures and the written description. As is explained at column 5 of SATO, the "first phase shifter 201 may be comprised of... sign inverters 302 and 303". Accordingly, while multiple components of element 201 in SATO are each individual sign inverters, element 201 is a phase shifter. Thus, element 201 in SATO is not properly characterized (i.e., interpreted) as a sign inversion circuit.

As explained in the previous Response filed on September 8, 2006, there is no proper motivation to place an amplitude multiplier as in the Admitted Prior Art between phase shifter 201 in SATO and phase shifter 202 in SATO, insofar as the Admitted Prior Art shown in FIG. 4B of the present application explicitly discloses that amplitude adjustment occurs before phase offset. Accordingly, even the modification of SATO with the Admitted Prior Art shown in FIG. 4B would result in the amplitude adjustment circuit being placed before phase shifter 201 and phase shifter 202 in SATO, and not between phase shifter 201 and phase shifter 202 in SATO.

Additionally, the Final Official Action mischaracterizes the amplitude limiter 36 of OMORI as an "amplitude multiplier" as in SATO, and a quadrature modulator 35 of OMORI as a "sign inverter" as in claim 15, so as to justify the assertion that OMORI suggests a motivation for placing a sign inverter before an amplitude multiplier. There is no proper explanation in the Final Official Action for these mischaracterizations of the teachings of OMORI, and Applicant does not believe that any such proper explanation is available.

That is, as explained above, element 201 of SATO is not properly characterized as a "sign inversion circuit". Further, there is no proper motivation to modify SATO to place the amplitude multiplier shown in Figure 4B of the Admitted Prior Art before element 202 of SATO and after (mischaracterized) element 201 of SATO.

Finally, rather than cite a proper motivation to modify SATO in the manner necessary to obtain the combination of features recited in claim 15, at page 3 the Final Official Action appears to disclaim the obligation to cite any such motivation. In this regard, the hindsight reasoning of the outstanding rejection does not take into account "only knowledge which was within the level of ordinary skill in the art at the time the... invention was made", and includes "knowledge gleaned only from the applicant's disclosure", as is evident from the wholesale mischaracterizations of the teachings of each of SATO, the Admitted Prior Art, and OMORI. Accordingly, the rejection of claim 15 does not establish a proper motivation to modify SATO in the manner necessary to obtain the combination recited in claim 15.

Thus, while a phase shifter 202 in SATO may be considered a generic "phase offset circuit that performs a phase offset calculation smaller than 90°" as recited in claim 15, the phase shifter 202 in SATO does not perform such a calculation "with the phase offset signal output from the amplitude adjustment circuit" as recited in claim 15. Further, the phase shifter 202 in SATO would be the only element of Figure 1 in SATO that is properly interpreted to relate to any feature positively recited in claim 15. Accordingly, a circuit that includes the phase shifter 202 in SATO would have to be modified to include the "sign inversion circuit", the "amplitude adjustment circuit" and the remaining features recited in claim 15 for the rejection of claim 15 to be proper. Further, for the rejection of claim 15 to be proper, there would need to be proper motivation to modify a circuit that includes the phase shifter 202 in SATO. Finally, there would also need to be motivation to eliminate numerous elements of SATO that would interfere with the combination proposed by the Examiner. Yet, there is no explanation as to why the wholesale necessary modifications to SATO would be obvious, let alone any proper explanation as to how

the modification of SATO proposed by the Examiner would result in the combination recited in claim 15.

Therefore, even modification of the teachings of SATO in the manner proposed by the Examiner would not result in the combination of features recited in claim 15. Further, there is no proper motivation for the extensive modifications to SATO that would be necessary to obtain the combination of features recited in claim 15.


At least for each and all of the numerous reasons set forth above, claim 15 is not disclosed, suggested or rendered obvious by the Admitted Prior Art and the documents applied in the outstanding Final Official Action. Therefore, reconsideration and withdrawal of the rejection of claim 15 is respectfully requested.

SUMMARY AND CONCLUSION

The present application is believed to be in condition for allowance. Applicant has explained how the combination of features recited in the pending claim are not disclosed, suggested or rendered obvious by the documents applied in the Final Official Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection, and an indication of the allowability of the claim now pending.

Should the Examiner have any questions, please contact the undersigned at the telephone number provided below.

Respectfully submitted,  
Kazuyuki OHHASHI

 Joshua M. Povsner  
Reg. #42,086  
Bruce H. Bernstein  
Reg. No. 29,027

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GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191